# ROUTING AND RECORD SHEET

SUBJECT: (Optional)
Computer Support for Projects

DD/A Registry
83-0813/1

STAT

FROM
D/ODP
2D00 Hdqs.

EXTENSION

NO.
ODP-83-904

STAT
STAT

DATE

| TO: (Officer designation, room number, and building) | DATE RECEIVED | DATE FORWARDED | OFFICER'S INITIALS | COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.) |
|---|---|---|---|---|
| 1. EO/DDA 7D18 Hdqs. | 1 JUL 1983 | 1 JUL 1983 | | |
| 2. ADDA 7D18 Hdqs. | | 5 JUL 1983 | | REGISTRY 50-1 |
| 3. DDA 7D18 Hdqs. | 5 JUL 1983 | | | |
| 4. Mgt Staff | | | | 4 JS. - I don't understand... why doesn't this just say - "Buy another 8060 so that [redacted] will have one and [redacted] will have one. |
| 5. Registry | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |

DD/A Registry
STAT
STAT

FORM 1-79 610 USE PREVIOUS EDITIONS

ODP-83-904
29 JUN 1983

MEMORANDUM FOR: Director of Personnel

FROM: [redacted] STAT
Director of Data Processing

SUBJECT: Computer Support for Projects [redacted] STAT
and [redacted] STAT

REFERENCE: Your Memo, Same Subject, Dtd. 21 Mar.'83
(ODP-83-458)

1. We have investigated all of the reasonable options for supporting your two Microdata Reality applications, [redacted] STAT
[redacted] at two different sites. Both applications currently run on a Microdata 8000 system with an older 6000 system being used for development work. The most cost-effective option would be to move the 8000 system [redacted] to support [redacted] and to upgrade the memory of the 6000 system to 128K and use it for [redacted] The disadvantages of this alternative, however, are the questionable reliability of the 6000 system and its inability to provide good response at high concurrent user levels. STAT STAT

2. Attachment A presents the tabulated results of a series of benchmark tests run on both the 6000 and 8000 systems by ODP in late 1980. Another series of benchmarks were run recently which re-verified these earlier results. A significant point to be noted from the Attachment A tabulation is that the performance of the 6000 series machine begins to degrade significantly beyond the six concurrent user level even at its maximum memory configuration (128K bytes).

3. Since it is our understanding that the [redacted] application STAT
will have to support up to nine concurrent users, using the 6000 system for this application may present performance problems during peak loading periods. Because of the performance problem just cited and because of the potential for significant hardware outage on the 6000 (it is a very old machine which uses ferrite core memory), Processing recommends that, if funds can be identified, a second Micro Data 8000 system be acquired to support [redacted] when it moves. STAT

This would leave the current 6000 and 8000 machines in their current location to support [redacted] and development activities. STAT

4. A Microdata 8000 system can be acquired at an approximate cost of [redacted] The purchase and installation of an additional [redacted] STAT bytes of memory for the 6000 would cost about [redacted] Since ODP STAT did not anticipate or budget for increased Microdata Reality capacity requirements, no funds are available for this purpose in ODP. Perhaps OP could fund this increase as a cost of moving its personnel [redacted] STAT

5. Please let us know how you wish to proceed.

[redacted] STAT

Attachment: As Stated

cc: Deputy Director for Administration, w/att

Attachment A

13 February 1981

## Benchmark Results

All programs used in the benchmark display menus at the terminal. The menus are "filled in" automatically with data that has been stacked in the terminal's input buffer. In a user environment, the ENTER key would be hit after each field in the menu was "filled in" and again after the entire menu is complete. Average response time was computed, therefore, as the total time for a complete menu cycle divided by the number of fields in the menu plus one. Since the time for a complete menu cycle includes the time required to display the menu, the values in the table below may be higher than the response time that the user would actually experience.

| | Average Response Time (seconds) | | |
|---|---|---|---|
| # Users | 6000-64K | 6000-128K | 8000-256K |
| 1 | 2.0 | 10.0* | 3.0 |
| 2 | 3.4 | 6.0 | 3.0 |
| 3 | 4.7 | 6.0 | 3.7 |
| 4 | 8.0 | 6.7 | 4.9 |
| 5 | 10.8 | 7.4 | 5.2 |
| 6 | 18.0 | 9.0 | 6.1 |
| 7 | 24.2 | 11.4 | 7.2 |
| 8 | - | 11.7 | 8.1 |
| 9 | - | 14.2 | 9.4 |
| 11 | - | - | 11.2 |
| 12 | - | 19.4 | - |
| 15 | - | - | 15.9 |

* An anomaly probably associated with system start-up procedures.